

NOTE REFER TO BULLETIN BY DATE & NUMBER

TECHNICAL DEPARTMENT BULLETIN

DATE

NUMBER


TO ALL DEALERS:

For your information we wish to advise that in our experiments and tests here at the factory with our new Eight Cylinder car, we have been able to secure uniformly better results with Standard Oil Company's Zerolene motor lubricant than with any other which we have used.

Please understand, however, that we do not wish this to be construed as an attempt on our part to dictate the brand of oil which you should use, but merely to call your attention to the fact that this particular brand has given us better results than any others which we have tried, and are giving you this for your information.

Yours very truly,

THE PEERLESS MOTOR CAR COMPANY



ZEROLENE

the Standard Oil for Motor Cars

ENDORSED BY PEERLESS MOTOR COMPANY—because their technical department was "able to secure uniformly better results with Standard Oil Company's Zerolene motor lubricant than with any other."

That's because Zerolene is correctly refined from asphalt-base crude by methods especially developed by the Standard Oil Company.

Less wear and more power because Zerolene keeps its lubricating body at cylinder heat. Less carbon because it burns clean and goes out on exhaust.

Zerolene is the oil for your car.

For sale by dealers everywhere and at our Service Stations

STANDARD OIL COMPANY
(CALIFORNIA)

CHLORIDE NEWS

(From Chloride Herald)

STEFFY CUSTOM MILL MACHINERY HAS ARRIVED; HAULING STARTS

The Steffy custom mill has received practically all the machinery that is to go into that plant, the last big shipment, consisting of two carloads, valued at \$10,000, reaching camp on Wednesday's train. All the teams and motor trucks available have been engaged to haul this machinery from the railroad to the plant and its installation is a matter of only a short time, Mr. Steffy stating that he will in all probability be ready to receive ore at the stated time.

Mr. Steffy advises that all those contemplating having their ore treated should not delay the signing of contracts, as there is now three times as much ore offered as the plant will be capable of handling. The management plans to do all possible to give every small operator a chance, and to do this will have to exclude several of the larger producers or at least considerably reduce their offerings. This is the opportunity that so many small property owners have been praying for and it is only fair to the mill owners that ore should be booked at once.

The mill has been designed on broad lines and the benefits to be derived from its operation will be felt almost immediately. In addition to the stimulus it will give to mining, the work of getting 250 tons daily to the mill will call for a large fleet of trucks so the good effect that this mill will have on the district will radiate in numerous directions.

EMERALD ISLE IS INSTALLING POWER

The Emerald Isle is having the electric power brought into its camp, the Desert Power and Water company having a force of men setting poles and stringing wire from their main line, which passes within half a mile of the copper company's plant. The electric current is to be used to assist in precipitating the red metal and also to aid in recovering the sulphuric acid, which in the process used amounts to quite an item and which is now completely lost. It is understood that with the aid of electricity about 80 per cent of the acid will be recovered. The Emerald Isle company estimates that the present proven tonnage of ore is 200,000 tons, which will average 2.85 per cent copper. Their tests show that a net recovery of 2.5 per cent copper is being made.

They have just completed four large

leaching tanks which with present equipment will furnish a capacity of 70 tons per day. A compressor and power drills have been purchased to reduce cost of mining and help increase the production.

The same people who made a success of the Leviathan and who are also operating the Cupel mine adjoining the Arizona Butte mine have the destinies of the Emerald Isle in their keeping and are going about its business affairs in a way that insures the success of the property.

COPPER AGE MILL WILL BE READY FOR USE BY JUNE 1

The 150-ton capacity Copper Age mill is expected to be in operation not later than June 1. Nearly all the machinery has arrived and has been installed. Workmen are now engaged in putting the rolls in place and in adjusting belts throughout the mill. The 100 horse-power engine that is to provide power to turn the mill machinery will be given a tryout some day this week. To all appearances the mill has been well constructed and is complete in every way. The process used has not been given a test in a plant of this size, but in the El Paso plant it is said to have given a high degree of satisfaction.

In the Copper Age mine three shifts are driving the lower main working tunnel, which is in 400 feet, and the vein drifted on about 90 east and west. The vein was crossed in each drift about 20 feet back from the present faces and the ore found to be of an excellent quality and of a better width than above.

The ore shoot was proven to be 520 feet in length on the upper tunnel level, with the ore swelling in places to as high as seven feet. Not all the ore is of that width, of course, the ore shoot frequently reducing to a few inches, then swelling again to a foot or perhaps several feet of good ore.

The company expects to press the machine drills into service in both the upper and lower tunnels this week, the 300-foot capacity compressor being in readiness to provide pressure. Foundations have been laid for a 750-foot capacity compressor, which has been ordered, but which has been delayed in leaving the factory, like machinery of all sorts.

SCHENECTADY SHAFT NOW DOWN 620 FEET

The Schenectady, which resumed work only a few days ago after a short shut down to install machinery needed in sinking the shaft deeper, is creeping to the front in providing mining development news of more than usual interest. The incline shaft, which will be sunk to the 500-foot level, has attained a depth of 260 feet. The ore-shoot that opened up so satisfactorily on the 175 foot level, is being followed and is proving to be equally as good where the miners are now working as in the upper workings.

Two feet of fine ore, which is showing a tendency to increase its dimensions, is now showing in the bottom, the character of the ore being identical with that found above, with the exception of a radical increase in zinc values. The yellow iron that invariably carries good gold values is also in evidence seemingly in the usual quantities, indicating a preservation of the gold values, which, with the increased zinc content, probably will increase the average assay value of the vein.

The owners of the Schenectady have let a contract with local mining men to sink the shaft to the 400-foot point. Since beginning work the contractors have gone down fifty feet and are making four feet daily. Three shifts are employed. Machine drills are being used.

KINGMAN DEFEATS CHLORIDE 5 TO 2 IN AN EXCITING GAME

CHLORIDE, May 7.—Kingman defeated Chloride Sunday in the best-played game ever seen in Chloride, if not in the county. The game was marked by the absence of the usual arguments when these two teams tangle up. The umpiring of Johnson and Davidson was very good, which in a measure accounted for the snappy playing of both teams.

In the first inning Bale lead off by getting to first on four balls. Robinson hit a line drive over second, which Brashear speared with one hand and doubled Abie. It was a sensational play. Price flied out to center. Chloride went out in order in their half.

Orendorff was walked in the second. Hansen fanned, but Webster hit a double, scoring Orendorff. Archie flied to center and Grantham ended the inning by fanning.

In Chloride's half Brashear hit a line drive between left and center for three bags and scored when the ball was poorly returned from the outfield. Jacobson went out, short to first, Ryan popped to second and Sais fanned.

In the third Kingman made three hits, but failed to score owing to King's good work behind the bat. Clark was called safe on a hairline decision at first, but was picked off a moment later by King. Abie popped to short. Robinson hit a double and Price followed with a single, but was caught stealing, King to Brashear.

The score stood one to one until the fifth, when Kingman scored twice. Archie hit to Sais, who made a bad peg to first, allowing him to go to second. On a missed hit and run play he was thrown out at third. Grantham singled and Tommy Clark scored him on a long three-bagger to the railroad track. Abie followed with another single, scoring Tommy. On another attempted hit and run play Robinson hit a foul to Menable and Abie was doubled.

No further scoring was done until the ninth, when Orendorff started the fireworks with a double to right. Hansen was walked, Webster whiffed and Archibald scored both men with a triple. Grantham fanned and Clark went out, Brashear to Venable.

After White and King were out Brashear hit another line drive, which was stopped by a pile of cactus, and he had to be satisfied with one base. Webster dropped Jacobson's pop-up. Ryan poked out a hit past base, scoring Brashear and Jacobson was thrown out at the plate for the last putout.

Tommy Clark pitched one of his best games and deserved his victory. Chloride played a good defensive game, but it takes hits to win ball games. Chloride will play a return game at Kingman on May 20, and promises to bring a much stronger team, so that another exciting game is promised the fans on that date.

The lineup:

Kingman		Ab. R. H. Po. A. E.	
Bale, rf	.....	3	0 1 1 0 0
Robinson, lb	.....	4	0 1 7 0 0
Price, 3b	.....	3	0 1 2 0 0
Orendorff, c	.....	3	2 1 9 2 0
Hansen, 2b	.....	3	1 0 3 1 2
Webster, ss	.....	4	0 2 1 3 1
Archibald, cf	.....	4	0 1 1 0 0
Grantham, lf	.....	4	1 1 2 0 1
Clark, p	.....	4	1 2 1 5 0

32 5 10 27 11 4

Chloride		Ab. R. H. Po. A. E.	
Venable, lb	.....	4	0 0 1 0
White, ss	.....	4	0 1 4 1 0
King, c	.....	4	0 0 4 0
Brashear, 2b	.....	3	2 2 3 3 0
Jacobson, lf	.....	4	0 0 5 0 0
Ryan, lf	.....	4	0 1 0 0 0
Sais, 3b	.....	3	0 0 2 0 1
Foley, rf	.....	2	0 0 0 0 0
Dudley, rf	.....	1	0 0 0 0 1
Knorr, p	.....	3	0 0 1 1 1

32 2 4 27 10 3

Kingman		R. H. E.	
Runs	.....	0	10 0 2 0 0 2 5 10 4
Hits	.....	0	13 0 3 0 1 0 2

Chloride		R. H. E.	
Runs	.....	0	10 0 0 0 0 1 2 4 2
Hits	.....	0	10 0 0 0 1 0 2

Two-base hits—Webster, Orendorff, Robinson. Three-base hits—Brashear, Clark, Archibald.

Bases on balls—Off Knorr, 3; off Clark, 1. Struck out—By Knorr, 4; by Clark, 7. Left on bases—Kingman, 5; Chloride, 3.

Double plays—Brashear to White, Venable, unassisted. Stolen bases—Bale.

PRUNE PEDDLERS WALLOP HUNGRY NINE; SCORE 10-2

Ah, ha! The Arizona Stores bunch (Prune Peddlers) won a game. After making themselves at home in the Arizona Stores for several weeks, a great bunch of "Glooms" were yesterday put to flight by an invading army of "Joys" when the Prune Peddlers walloped the Hungry Nine (Kingman's old first team) to the tune of 10-2. The Peddlers were aided by the Butchers, thus easily romping home with the bacon.

The game was as pretty a battle as one could wish to see up to the eighth inning. In the eighth the Hungry Nine blew up, due, they claim, to the fact that two of their best men had to go home and feed the chickens. At any rate they blew up and the man who invented baseball must have set up in his grave and gnawed great hunks out of his tombstone. When the smoke cleared away the Peddlers had added eight runs to their previous collection of four.

From the second inning to the eighth no runner passed first base. Airtight ball among amateurs is unusual, to say the least, and it fulfills a previous prediction that better playing would result from the early closing of business houses. The boys now have ample opportunity for practice and are taking full advantage of it.

The features of the day were the pitching of George and Carey, and the brilliant fielding of Phil Smith, former third sacker for the first team.

Notwithstanding the awful suspense under which the fans are laboring, the team is unable to announce who will be the victims next Sunday. The Daily Miner will publish the name of the opposing team in an early issue.

Score:

R. H. E.	
Peddlers	..... 10 11 1
Hungry Nine	..... 2 4 1

Carey and Griffin; George and Johnson.

The Lineup:

Prune Peddlers

Earl, cf.

Cordain, lf.

Jackson, rf.

R. True, 3b.

Aubineau, ss.

Schmidt, 2b.

Anderson, lb.

Carey, p.

Griffin, c.

Hungry Nine

Johnson, c.

George, p.

Murphy, lb.

Metcalfe, 2b.

McKessen, ss.

P. Smith, 3b.

Nelson, lf.

Parks, cf.

Baker, rf.

YAVAPAI COUNTY SUES TO PREVENT SALARY PAYMENT

(From Sunday's Daily Miner)

PRESCOTT, May 5.—To restrain Yavapai county "from paying said unlawful increase or any part thereof on the 7th day of May, 1917, or at any time," William Stephens, chairman of the board of supervisors, and W. G. Wingfield, each in their capacity as private citizens, have sued the board of supervisors and the members and clerk.

This is the promised suit of the chairman of the board to prevent the paying of salaries under the law passed at the recent session of the legislature, to elective officers of this county, and further, to test the strength of that law in the light of a paragraph in the Arizona constitution, which says that the salary of no elective official shall be increased or diminished during his term in office.

It was on the recommendation of County Attorney E. J. Mitchell, who based his action on an opinion handed down by the attorney general, that the board, by a vote of Stukeley and Jaeger to Stephens decided to draw the salary warrants in the new amounts—adding in the neighborhood of \$30,000 per year to the county's official payroll.

TRANSCRIPT OF PUBLIC RECORDS

(Furnished by Mohave County Abstract & Title Co.)

(From Saturday's Daily Miner)

Mining Deeds

Hugh F. Eaton to Monte Carlo Tellurium Mines Co.

Thos H. Condon to Monte Carlo Tellurium Mines Co.

Monte Carlo Tellurium Mines Co. to Monte Carlo Gold & Copper Mines Co.

Stanley F. O'Leary and M. M. Buckley to Oatman Standard Mines Co.

R. S. Billings to Charles L. Lewis.

Warranty Deed

Dan and Mary Hibbert to William R. Anderson.

Quit Claim Deed

E. H. Dickie to H. G. Putney.

Water Location

W. F. M. O'Brien (5).

Location Notices

William A. Davidson.

H. G. Putney.

Notice and Claim of Lien

Tarr, McComb & Ware Commercial Co. vs. Keystone Consolidated Mining company.

Certificate of Sale

Grapevine Springs Water Co. vs. Times Mining Co.

Marginal Release of Lien

Tarr, McComb & Ware Commercial Co. to Butterworth and Richardson, et als.

Execution and Order of Sale (Copy)

Lovin & Withers Co. vs. Lucky Sam Mining Co.

Eight Miscellaneous Papers Filed

Appointment as deputy sheriffs:

L. W. Johnson, O. W. Johnson, R. McCarren, Ben H. Braffet, Walter Baker, J. G. Duggan, Richard Banks, Charles Standish.

Auto Saved, He Leaves Without Word Of Thanks

(From Saturday's Daily Miner)

Early yesterday an automobile driven by a tourist had a near call to complete destruction by fire. The garage man at the Old Trails was called upon to furnish gas and had just completed the job when the inquisitive gentleman wanted to take a look to satisfy himself that he was getting his money's worth. He carried a lighted carbide lamp and struck the flame against the still dripping hose, when there was an immediate explosion, burning oil being thrown over the rear end of the machine and onto the cement walk. After some effort the machine was shoved away from the gas holder and a chemical extinguisher brought into play. Before the fire was extinguished the upholstery on the car and part of a suitcase were burned. The loss was considerable, but the tourist departed without thanking the bystanders for their effort in saving the car.

COPPER INDUSTRY IN ARIZONA ACTIVE ON ACCOUNT OF WAR

PRESCOTT, Ariz., May 4.—In Arizona, the wonder copper state, much is often heard of the more recent mining developments in the fields adjoining the United Verde Extension (Little Daisy) and the Magna, but engineers well versed in the mining business do not limit their investigations nor activities to the well-known districts. All throughout the 14 counties of Arizona, wherever indications may seem favorable, activity is now being noticed, so that during the next few months several new producers may be added to the list of already well known copper properties.

Recently the San Juan mine, consisting of thirteen claims, or approximately 260 acres, located in the Lone Star mining district of Graham county, was acquired by the Atlas Copper company. The mineralized copper area is an intrusive mass of granitic porphyry, which can be properly classed as monzonite. This intrusion is through the diorite or country rock. The present development has proven disseminated copper and the records from the drill holes give a tonnage of 960,000 tons of ore of an average of 3.65 per cent copper per ton. In addition to this tonnage of developed milling ore, there is a very large tonnage of surface ores, consisting of carbonates and oxides. The present development shows 2,500 feet of drilling, main shaft 325 feet deep and about 750 feet of drifting. The mine is well equipped with adequate machinery for development, consisting of hoist, compressor, pumps, etc., and a complete star drilling rig.

For a number of years the Atlas Copper company's claims have been productive, and previous to 1917 there had been shipped or milled from these claims in the neighborhood of \$400,000 worth of copper ore. A portion of the ore had been treated by crude concentration on the ground. During 1916 shipments of ore were regularly made and returns from nine cars shipped from June 1 of that year gave net smelter returns of \$12,067.46, after railroad freight, etc., had been paid. These cars averaged 45 tons of ore each, with a copper metal content of 7½ per cent, while on some of the cars 60c for gold and silver was approximately \$52,000, the shipments consisted of carbonate ore from the surface. The total amount of the net returns for the balance of 1916 were approximately \$52,000, the shipments being made to the smelters at Douglas and El Paso.

At the present time a large force of men is at work continuing the underground development and further operations by churn drilling. Regular shipments of two cars a week of the copper ore is now being made, which will be increased to a daily within a very short time. It is the intention of the Atlas company to construct a concentrating plant of not less than 300 tons daily capacity, the plans now being under way.

The Atlas company is incorporated under the laws of the state of Arizona, with a capitalization of \$1,000,000, divided into 1,000,000 shares of the par value of \$1.00 each, fully paid and non-assessable. The Arizona officials of the Atlas Copper company are among the best known business and mining men in the copper state, and while some of the stock is being handled on the New York curb, these men have invested their money toward making the Atlas one of the big producers of Arizona.

Following are the officers: President R. W. Craig, Phoenix; vice-president, John Barber, Phoenix; second vice-president, Andrew J. McElhenney, 34 Nassau street, New York; treasurer, E. W. Clayton, Safford, Arizona; secretary, T. J. Sparkes, Phoenix; assistant secretary, Morrison Hankins, 34 Nassau street, New York; director, Gus Hirschfield, Hayden, Arizona.

The consummation of the deal for the taking over of the San Juan mine by the Atlas Copper company is due largely to the efforts of Lewis A. Dunham, a well known mining authority. In commenting upon the Atlas copper, Mr. Dunham said: "I believe the Atlas copper is the best partially developed copper mine in Arizona. In addition to the tonnage already indicated, the prospects of finding a further considerable tonnage of ore of the same average value are excellent."

GOES TO PHOENIX

Bert Morris, former editor and publisher of the Chloride Mining Review, and family left for Phoenix yesterday where Mr. Morris will be associated with newspapers at the capital. They are making the trip in an automobile.